

CLAIM AMENDMENTS

Please amend claims 1, 5, 10, 11, and 20 as follows:

1. (Currently Amended) A method for determining resource capabilities in a production environment, said method comprising:

initially evaluating a plurality of jobs within a production environment;

estimating at least one peak-demand production rate associated with said production environment, in response to evaluating said plurality of jobs;
and

thereafter automatically calculating minimal resource capacities of said production environment based on estimating said at least one peak-demand production rate by identifying at least one achievable region and at least one un-achievable region and thereafter calculating at least one Pareto optimal solution in response to identifying at least one achievable region and at least one un-achievable region, thereby determining resource capabilities thereof.

2. (Original) The method of claim 1 wherein said production environment comprises a printing environment.

3. (Original) The method of claim 2 wherein said printing environment comprises a print shop.

4. (Original) The method of claim 1 wherein said plurality of jobs comprises a plurality of printing jobs.

5. (Currently Amended) The method of claim 1 wherein said printing environment comprises a print job, said plurality of jobs comprises a plurality of printing jobs, and said production environment comprises a printing environment ~~calculating minimal resource capacities of said production environment, further comprises identifying at least one achievable region and at least one un-achievable region; and thereafter calculating at least one~~

~~Pareto optimal solution in response to identifying at least one achievable region and at least one un-achievable region.~~

6. (Original) The method of claim 1 wherein calculating minimal resource capacities of said production environment, further comprises:

calculating minimal resource capacities of said production environment based on a linear programming (LP) analysis.

7. (Original) The method of claim 1 wherein calculating minimal resource capacities of said production environment, further comprises:

calculating minimal resource capacities of said production environment based on a generalized geometrical algorithm.

8. (Original) The method of claim 1 wherein said production environment comprises a lean document production environment.

9. (Original) The method of claim 1 wherein calculating minimal resource capacities of said production environment, further comprises:

calculating minimal resource capacities of said plurality of resources of said production environment based on a multi-objective optimization thereof.

10. (Currently Amended) A method for determining minimal resource capabilities in a printing environment, said method comprising:

initially evaluating a plurality of printing jobs within a printing environment, wherein said printing environment comprises a print shop;

estimating at least one peak-demand production rate associated with said printing environment, in response to evaluating said plurality of printing jobs; and

thereafter automatically calculating minimal resource capacities of said plurality of resources of said printing environment based on a multi-objective optimization thereof and estimating said at least one peak-demand

production rate and a multi-objective optimization thereof, thereby determining minimal resource capabilities thereof.

11. (Currently Amended) A system for determining resource capabilities in a production environment, said system comprising:

a plurality of jobs evaluated within a production environment;

estimation module for estimating at least one peak-demand production rate associated with said production environment, wherein said estimation module estimates said at least one peak-demand production rate in response to evaluating said plurality of jobs; and

calculation module for automatically calculating minimal resource capacities of said production environment based on an estimation of at least one peak-demand production rate via said estimation module, wherein said calculation module comprises at least one calculation module among a plurality of varying calculation modules for automatically calculating minimal resource capacities of said production environment, thereby determining resource capabilities thereof.

12. (Original) The system of claim 11 wherein said production environment comprises a printing environment.

13. (Original) The system of claim 12 wherein said printing environment comprises a print shop.

14. (Original) The system of claim 11 wherein said plurality of jobs comprises a plurality of printing jobs.

15. (Original) The system of claim 11 wherein said calculation module identifies at least one achievable region and at least one un-achievable region and thereafter calculates at least one Pareto optimal solution in response to identifying at least one achievable region and at least one un-achievable region.

16. (Original) The system of claim 11 wherein said calculation module calculates minimal resource capacities of said production environment based on a linear programming (LP) analysis.

17. (Original) The system of claim 11 wherein said calculation module calculates minimal resource capacities of said production environment based on a generalized geometrical algorithm.

18. (Original) The system of claim 11 wherein said production environment comprises a lean document production environment.

19. (Original) The method of claim 11 wherein said calculation module calculates minimal resource capacities of said plurality of resources of said production environment based on a multi-objective optimization thereof.

20. (Currently Amended) The method of claim 11 wherein said production environment comprises a lean document production environment and wherein said calculation module calculates minimal resource capacities of said plurality of resources of said production environment based on a multi-objective optimization thereof ~~calculation module comprises at least one calculation module among a plurality of varying calculation modules for calculation module for automatically calculating minimal resource capacities of said production environment.~~